AMENDMENTS TO THE CLAIMS

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The following listing of claims replaces all prior versions, and listings, of claims in this application.

Claim 1 (**Currently Amended**). A molecular compound selected from the group consisting of hydrates, solvates, adducts, and clathrate compounds prepared by the method of reacting a phenol derivative represented by Formula (I)

wherein R₁ and R₅ are same or different selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons or carbons,

$$---SO_2-Y$$
 and $---c$

wherein Y is selected from the group consisting of alkyl having 1 to 8 carbons, alkenyl having 2 to 8 carbons, alkoxy having 1 to 6 carbons, substituted amino, substituted cycloalkyl, substituted phenyl [[or]] and substituted aralkyl

Z is selected from the group consisting of alkyl having 1 to 8 carbons, alkenyl having 2 to 8 carbons, alkoxy having 1 to 6 carbons, hydroxyl, substituted amino, substituted cycloalkyl, substituted phenyl [[or]] and substituted aralkyl;

 R_2 and R_4 are same or different selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, [[or]] and hydroxyl, [[or]] or, when R_1 , R_3 or R_5 is alkoxy having 1 to 4 carbons or hydroxyl, R_2 and R_4 are same or different selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl,

$$--SO_2-Y$$
 and $--C$

wherein Y and Z are as defined above, when R_1 , R_3 or R_5 is alkoxy having 1 to 4 carbons or hydroxyl; above:

 R_3 is selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl, Formula (II) or (II), Formula [[(III)]] (III), — SO_2 —Y, and —C(=O)—Z, wherein Y and Z are as defined above,

$$R_7$$
 R_6
 R_{10}
 R_{10}
 R_{11}
 R_{12}
 R_{11}
 R_{12}

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wherein X is selected from the group consisting of

wherein w is 0, 1 or 2; u is 0 or 1; q is 0 to 4; R_{14} and R_{15} are same or different selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl, optionally substituted phenyl [[or]] and optionally substituted aralkyl; R_{16} is selected from the group consisting of hydrogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl, substituted phenyl [[or]] and substituted aralkyl;

 R_6 , R_9 and R_{10} are same or different selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl, [[or]]

$$---SO_2$$
 and $-- C$ $- Z$

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wherein Y and Z are as defined above;

 R_7 , R_8 , R_{11} , and R_{13} are same or different selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons [[or]] and hydroxyl, but when R_{12} is alkoxy having 1 to 4 carbons or hydroxyl, R_{11} is selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl or hydroxyl,

$$---SO_2-Y$$
 and $---C$

wherein Y and Z are as defined above when R₁₂ is alkoxy having 1 to 4 carbons or hydroxyl; above; R₁₂ is selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl or selected from the group consisting of hydroxyl,

$$---SO_2-Y$$
 and $---C$

wherein Y and Z are as defined above, or selected from the group consisting of

$$\begin{bmatrix} \begin{bmatrix} ---c \\ 0 \end{bmatrix} \end{bmatrix} \quad \text{and} \quad \begin{bmatrix} \begin{bmatrix} --c \\ 0 \end{bmatrix} \end{bmatrix}$$

wherein Y and Z are as defined above, provided that

when R₃ is of Formula (II), one of R₁, R₅, R₆, and R₉ is selected from the group consisting of

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$$---SO_2--Y$$
 and $----C$

wherein Y and Z are as defined above, in which, when X is

$$\begin{array}{c|c}
 & R_{14} \\
 & C \\
 & R_{15}
\end{array}$$

at least one of R_1 , R_2 , R_4 , R_5 , R_6 , R_7 , R_8 , and R_9 is —SO₂—Y, and

when R₃ is of Formula (III), at least one of R₁, R₅, and R₁₀ is selected from the group consisting of

$$--SO_2-Y$$
 and $--C$

in which, when X is

$$\begin{array}{c|c}
 & R_{14} \\
 & C \\
 & R_{15} \\
\end{array}$$

at least one of R_1 , R_2 , R_4 , R_5 , R_{10} , R_{11} , R_{12} , and R_{13} is —SO₂ —Y,

wherein Y and Z are as defined above, and

when R_3 is selected from a group other than the group consisting of Formula (II) [[or]] and (III), either of R_1 or R_5 is selected from the group consisting of

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wherein Y and Z are is as defined above, and

the phenol derivative is reacted with an organic compound under conditions sufficient to form the molecular compound selected from the group consisting of hydrates, solvates, adducts, and clathrate compounds having the phenol derivative as a constituent, the constituent being a host.

Claim 2 (Currently Amended). A molecular compound selected from the group consisting of hydrates, solvates, adducts, and clathrate compounds prepared by the method of reacting a phenol derivative represented by Formula (IV)

wherein A is selected from the group consisting of

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wherein w is 0, 1 or 2 and u is 0 or 1;

 R_{18} , R_{19} , R_{21} and R_{24} are same or different selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons [[or]] and alkenyl having 2 to 4 carbons;

 R_{17} is selected from the group consisting of

$$---SO_2-Y$$
 and $---C$

wherein Y and Z are selected from the group consisting of

alkyl having 1 to 6 carbons,

alkenyl having 2 to 6 carbons,

cyclohexyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

cyclopentyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

phenyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or halogen,

benzyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

phenethyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

α-methylbenzyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, [[or]] and

naphthyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, and

 R_{20} , R_{22} , and R_{23} are same or different selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons or the same groups as those for R_{17} , carbons, — SO_2 —Y, and —C(=O)—Z, wherein Y and Z are as defined above, and

when A is

at least one of R_{17} , R_{20} , R_{22} , and R_{23} is —SO₂—Y wherein Y is as defined above, and

an organic compound, compound as the other reactant under conditions sufficient to form the molecular compound selected from the group consisting of hydrates, solvates, adducts, and clathrate compounds having the phenol derivative as a constituent, the constituent being a host.

Claim 3 (**Currently Amended**). A molecular compound selected from the group consisting of hydrates, solvates, adducts, and clathrate compounds prepared by the method of reacting a phenol derivative represented by Formula (V)

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$$R_{25}$$
 R_{26} R_{29} R_{30} R_{30} R_{30} R_{31}

wherein B is a group selected from the group consisting of

wherein w is 0, 1 or 2 and u is 0 or 1;

 R_{26} , R_{27} , R_{30} and R_{32} are same or different selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons [[or]] and alkenyl having 2 to 4 carbons;

 R_{25} , R_{28} , R_{29} , and R_{31} are same or different selected from the group consisting of hydrogen, halogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons or carbons.

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$$---SO_2-Y$$
 and $---C$

wherein Y and Z are selected from the group consisting of

alkyl having 1 to 6 carbons,

alkenyl having 2 to 6 carbons,

cyclohexyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

cyclopentyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

phenyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or halogen,

benzyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

phenethyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

α-methylbenzyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, [[or]] and

naphthyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, and

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at least one of R₂₅, R₂₈ and R₂₉ is selected from the group consisting of

$$---SO_2-Y$$
 and $----Z$

wherein Y and Z are selected from the group consisting of as defined above, and

alkyl having 1 to 6 carbons,

alkenyl having 2 to 6 carbons,

cyclohexyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

cyclopentyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

phenyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or halogen,

benzyl-which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

phenethyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

æmethylbenzyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, or

naphthyl which may have alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or

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alkoxy having 1 to 4 carbons or hydroxyl or halogen,

when B is

at least one of R_{25} , R_{28} , R_{29} , and R_{31} is — SO_2 —Y wherein Y is as defined above, and

an organic compound as the second reactant under conditions sufficient to form the molecular compound selected from the group consisting of hydrates, solvates, adducts, and clathrate compounds having the phenol derivative as a constituent, the constituent being a host.

Claim 4 (**Currently Amended**). A molecular compound selected from the group consisting of hydrates, solvates, adducts, and clathrate compounds prepared by the method of reacting a phenol derivative represented by Formula (VI)

$$R_{33}$$
 R_{34} R_{35} R_{37} R_{36} (VI)

wherein R₃₃ is selected from the group consisting of

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wherein Y and Z are is selected from the group consisting of

alkyl having 1 to 6 carbons,

alkenyl having 2 to 6 carbons,

cyclohexyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

cyclopentyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

phenyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or halogen,

benzyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

phenethyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen,

α-methylbenzyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, [[or]] and

naphthyl optionally substituted with alkyl having 1 to 4 carbons or alkenyl having 2 to 4 carbons or alkoxy having 1 to 4 carbons or hydroxyl or halogen, and

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 R_{34} , R_{35} , R_{36} and R_{37} are same or different selected from the group consisting of hydrogen, alkyl having 1 to 4 carbons, alkenyl having 2 to 4 carbons, alkoxy having 1 to 4 carbons, hydroxyl, halogen or the same groups as those for R_{337} , halogen and —SO₂—Y, wherein Y is as defined above,

$$\begin{array}{c} \left[\left[\begin{array}{c} - - z \\ 0 \end{array} \right] \right]_{,R_{33}\text{-is}} \left[\left[- - so_2 - Y \right] \right]_{; \text{ and}} \\ \\ \left[\left[\begin{array}{c} - - z \\ 0 \end{array} \right] \right]_{,R_{37}\text{ is hydrogen, alkyl having 1 to 4 carbons, alkenyl}} \\ \end{array}$$

with an organic compound as the second reactant under conditions sufficient to form the molecular compound selected from the group consisting of hydrates, solvates, adducts, and clathrate compounds having the phenol derivative as a constituent, the constituent being a host.

Claims 5-15 (Cancelled).

Claim 16 (Currently Amended). A molecular compound according to Claim 1, in which the molecular compound contains, as constituents: comprising:

[[a]] the phenol derivative selected from the group consisting of represented by Formula [[(I);]] (I) as defined in Claim 1; and

a material that reacts with the phenol derivative to form a molecular eompound compound, the material selected from the group consisting of antibacterial agents, antifungal agents, insecticides, noxious insect repellants, perfumes, deodorants, antifouling agents, curing agents for coating materials, accelerators for coating materials, resins, adhesives, natural essential oils, antioxidants, vulcanization accelerators and organic solvents.

Claim 17 (Currently Amended). A molecular compound according to Claim 2, in which the molecular compound contains, as constituents: comprising:

[[a]] the phenol derivative selected from the group consisting of represented by Formula [[(IV);]] (IV) as defined in Claim 2; and

a material that reacts with the phenol derivative to form a molecular eompound compound, the material selected from the group consisting of antibacterial agents, antifungal agents, insecticides, noxious insect repellants, perfumes, deodorants, antifouling agents, curing agents for coating materials, accelerators for coating materials, resins, adhesives, natural essential oils, antioxidants, vulcanization accelerators and organic solvents.

Claim 18 (Currently Amended). A molecular compound according to Claim 3, in which the molecular compound contains, as constituents: comprising:

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[[a]] the phenol derivative selected from the group consisting of represented by Formula

[[(V);]] (V) as defined in Claim 3; and

a material that reacts with the phenol derivative to form a molecular compound compound,

the material selected from the group consisting of antibacterial agents, antifungal agents,

insecticides, noxious insect repellants, perfumes, deodorants, antifouling agents, curing agents for

coating materials, accelerators for coating materials, resins, adhesives, natural essential oils,

antioxidants, vulcanization accelerators and organic solvents.

Claim 19 (Currently Amended). A molecular compound according to Claim 4, in which

the molecular compound contains, as constituents: comprising:

[[a]] the phenol derivative selected from the group consisting of represented by Formula

[[(VI);]] (VI) as defined in Claim 4; and

a material that reacts with the phenol derivative to form a molecular compound compound,

the material selected from the group consisting of antibacterial agents, antifungal agents,

insecticides, noxious insect repellants, perfumes, deodorants, antifouling agents, curing agents for

coating materials, accelerators for coating materials, resins, adhesives, natural essential oils,

antioxidants, vulcanization accelerators and organic solvents.

Claims 20-31 (Cancelled).

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